

**IN THE ABSTRACT**

Please amend the abstract as follows:

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A nanoporous silicon support comprising a plurality of macropores is provided to function as a bioreactor for the maintenance of cells in culture in a differentiated state. Each cell or group of cells is grown in an individual macropore and is provided with nutrients such as by means such as perfusion of the nanoporous silicon support with fluid. The macropores may be between 0.2 and 200 microns and be coated with a substance that provides promotes cell adhesion. The support containing cells may be used to test compounds for biological activity, metabolism, toxicity, mutagenicity, carcinogenicity or to characterize novel or unknown compounds. The supports are is sufficiently robust that they it may be assembled into larger reactors to simulate organ function or be used for the production of biomolecules.